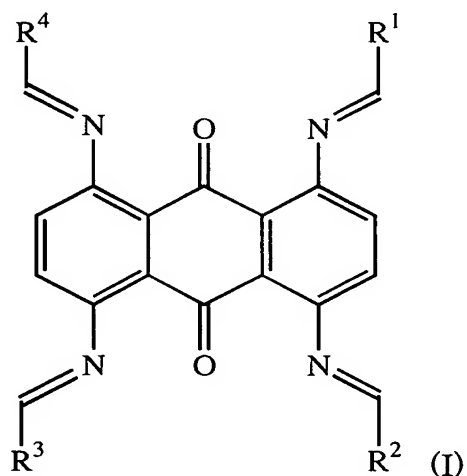


Claims

1. A method for invisibly marking a liquid petroleum hydrocarbon;
said method comprising adding to said liquid petroleum hydrocarbon at least one
5 dye having formula (I)



wherein R¹, R², R³ and R⁴ independently are aryl or aromatic heterocyclic; and
10 wherein said at least one dye has an absorption maximum in the range from 710 nm to 900 nm.

2. The method of claim 1 in which the liquid petroleum hydrocarbon is selected from the group consisting of lubricating oil, hydraulic fluid, brake fluid,
15 gasoline, diesel fuel, kerosene, jet fuel and heating oil.

3. The method of claim 1 in which R¹, R², R³ and R⁴ are the same aryl or aromatic heterocyclic group.

20 4. The method of claim 3 in which R¹, R², R³ and R⁴ are phenyl or substituted phenyl.

5. The method of claim 1 in which each dye is present in an amount from 0.01 ppm to 5 ppm.

6. The method of claim 5 in which said dye having formula (I) has an absorption maximum in the range from 750 nm to 900 nm.

5 7. The method of claim 6 further comprising at least one visible dye in an amount from 0.1 ppm to 2 ppm.

8. The method of claim 7 in which each dye having formula (I) is present in an amount from 0.01 ppm to 2 ppm, and each visible dye is present in
10 an amount from 0.2 ppm to 2 ppm.

9. The method of claim 8 in which R¹, R², R³ and R⁴ are phenyl or substituted phenyl.

15 10. The method of claim 9 in which the liquid petroleum hydrocarbon is selected from the group consisting of lubricating oil, hydraulic fluid, brake fluid, gasoline, diesel fuel, kerosene, jet fuel and heating oil.